

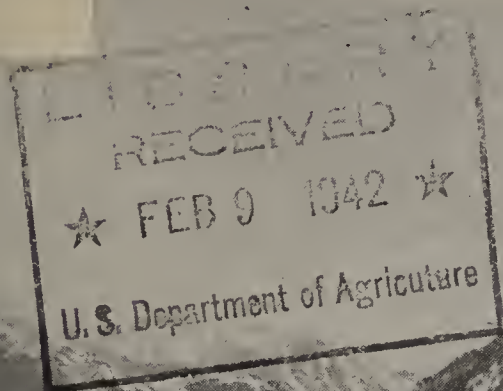
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COCHETOPA

NATIONAL FOREST •

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When entering the Cochetopa National Forest on State Route 82.

U. S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE

Rocky Mountain Region

1941

On the "Backbone"

THE COCHETOPA NATIONAL FOREST is located in south central Colorado and contains the highest section of the Rocky Mountains. It includes the headwaters of the Arkansas River and the mountain region north and west of the San Luis Valley on the east side of the Continental Divide, and the Tomichi Creek drainage on the west side of the Divide. Within this forest, the "backbone" of the Continent twists and turns for 175 miles; and innumerable peaks, mountains, and ridges combine to form this mighty divide. The Rocky Mountains reach their highest elevation at Mount Elbert, 14,431 feet above sea level; and peaks 10,000 to 14,000 feet in elevation are the rule, rather than the exception.

Close to Mount Elbert are Mount Massive, 14,419 feet, true to its name in physical appearance, and Mount Harvard, 14,399 feet. These are the three highest peaks in the State. Elbert and Massive also are the second and third highest peaks in Continental United States. La Plata, 14,342; Antero, 14,245; Shavano, 14,179; Princeton, 14,177; Yale, 14,172; Democrat, 14,142; and Grizzly, 14,020 feet, are other peaks in the Cochetopa Forest which rise above 14,000 feet. Hundreds of peaks, almost as high, extend southward to Mount Ouray, 13,855 feet, near Marshall Pass. South of Marshall Pass the Continental Divide is transformed into broad timbered mesas covered with stands of ponderosa and lodgepole pine as far as Cochetopa Pass. From that pass the mountains again become steep and rugged, ending in the La Garitas, along the south boundary of the forest.

Establishment and Name

The Cochetopa is one of the 161 national forests in the United States which have been established for the protection and use of their natural resources. These national forests total over 175,000,000 acres of Government land, of which 1,173,809 acres are included within the Cochetopa.

The original Cochetopa Forest, which was later enlarged by several additions, was established by proclamation of President Theodore Roosevelt on June 13, 1905. In 1930, about 233,000 acres were added when the former Leadville National Forest was abolished, and in 1934, about 120,000 acres of the public domain, lying chiefly east of the Arkansas River.

"Cochetopa" is from the Ute language and means "buffalo gate." The name was first applied to Cochetopa Pass, which is on the Continental Divide between the Saguache and Cochetopa Creek watersheds, or to North Pass, which lies about 5 miles north, because large herds of buffalo annually crossed the passes during their spring and fall migrations. During the early exploration and settlement of central and western Colorado, North Pass was the one most frequently used, because of its comparatively easy ascent from either side; and, by many persons, it is considered the true "buffalo gate." The first road across that part of the Continental Divide was constructed over North Pass in the early 60's.

Highways and Railroads

Although the Cochetopa Forest includes one of the most rugged sections of the Rocky Mountains, it is easily accessible over a system of highways which parallel the forest in mountain valleys and cross it over six passes on the Continental Divide. Three roads, U S 24, 6, and 285, unite to form the main north-south artery of travel through the forest. While mainly outside the forest, except where they cross the passes, these highways combine to form a route from which all parts of the forest may be reached. U S 24 and 285 enter the forest via South Park, branching north and south through the Arkansas River Valleys. U S 24 gradually ascends the upper valley and passes through Buena Vista and Granite to Leadville, one of the most interesting and prosperous mining towns in the Cochetopa region. Near Leadville, wonderful panoramas of Mounts Elbert and Massive are visible before the top of the Divide is reached at Tennessee Pass. About 1 mile north of Leadville, U S 6 branches northeast from U S 24, ascends the upper limits of the Arkansas River Valley, crosses Fremont Pass (elevation

of the Continent...

11,316 feet), and passes through the town of Climax, with its famous molybdenum mine.

Southward from its junction with U S 24, U S 285 follows the Arkansas Valley to Salida, where the headquarters of the forest is located. There U S 285 joins with U S 50 for a short distance, then swings over Poncha Pass into the beautiful San Luis Valley, while U S 50, a newly constructed road, crosses the Continental Divide over Monarch Pass, at 11,386 feet.

Three other highways branch from the north-south route to cross the Continental Divide—State Route 114, the Cochetopa Pass route; State Route 82, which branches off U S 24 at Twin Lakes and crosses spectacular Independence Pass at 12,095 feet; and State Route 104, which leaves U S 24 near Leadville and passes through the Carlton Tunnel, $1\frac{3}{4}$ miles long, and thence down the Frying Pan River to Glenwood Springs. This network of roads makes the greater part of the Cochetopa Forest easily available to automobile or bus travel. Many interesting circle trips may be made across the Continental Divide from Salida, the "gateway of the passes," by combinations of the highways which traverse Fremont, Tennessee, Independence, Monarch, Poncha, and Cochetopa Passes, and the Carlton Tunnel. From these high roads, the beauties of the Rockies can be viewed in complete comfort. In contrast, the more inaccessible parts of the forest may be reached by pack trips over a well-developed system of trails.

In addition, the forest is served by the Denver and Rio Grande Western Railroad, which extends through Salida, up the Arkansas River Valley, through Buena Vista, and Leadville, and thence across Tennessee Pass to the western slope. From Salida, its narrow-gage system crosses Poncha Pass toward southern Colorado and New Mexico, with one branch crossing Marshall Pass to Gunnison.

Mining and Settlement

The region in and surrounding the Cochetopa Forest is famous in the mining history of the West. The meagre, early records of the Spanish explorers indicate that some of them came into the State seeking the source of gold, the existence of which was known to some of the Indian tribes, but apparently they were unsuccessful in their quests.

Ask for Information

The national forests are administered by the Forest Service, U. S. Department of Agriculture. Individual forests are under the direction of a forest supervisor. He has an office staff, and is assisted by forest rangers who are in charge of parts of the forest designated as ranger districts. The supervisor and the rangers will furnish map folders and information, either personally or by letter. They will tell you about roads, camp sites, trails, and other interesting details of the forest, if you are interested. They may be reached at the following locations:

Forest Supervisor, Cochetopa Forest, Salida, Colo.

Forest Ranger, Leadville District, Leadville, Colo.

Forest Ranger, Buena Vista District, Buena Vista, Colo.

Forest Ranger, Poncha District, Salida, Colo.

Forest Ranger, Saguache District, Saguache, Colo.

Forest Ranger, Tomichi District, Sargents, Colo.

TREES OF THE COCHETOPA

Distinguishing characteristics of the trees are as follows:

CONIFERS

PINES.—Five species. The pines of the Cochetopa have their needles gathered together at the base in bundles of from two to five. The cones are woody and pendent.

LIMBER PINE (*Pinus flexilis*).—Needles are fine, almost silky, dark green, $1\frac{1}{2}$ to 3 inches long, always in bundles of five. Cones are 3 to 5 inches long, with seeds $\frac{1}{3}$ inch long; scales smooth. Bark is light gray or silvery white, except on old trunks, which are blackish brown and furrowed.

BRISTLEcone PINE (*Pinus aristata*).—Needles grow five in a bundle, about 1 to $1\frac{1}{2}$ inches long, almost always covered with tiny specks of pitch. Cones have sharp bristles on the tips of the scales, which give the tree its name. Sometimes the species is called "foxtail pine" because of the resemblance of the ends of branches to the tail of a fox. It occurs at high altitudes and on rocky exposed ridges.

PONDEROSA PINE (*Pinus ponderosa*).—Needles are 4 to 7 inches long, deep green, usually grow three in a bundle but sometimes two, and in tufts at the ends of the branches. Cones are 3 to 5 inches long and the scales are armed with spines. When young, the bark is dark and the tree is often called "blackjack" or "bull" pine. When older, the bark is reddish brown and has thick scaly ridges.

Highlights of Early History

The Ute Indian tribe held the present forest area before the westward march of the white man forced them across the Continental Divide. The Utes, being a powerful tribe, were able to hold off, or drive out, trespassing plains tribes. They strongly opposed the white man's encroachment, and many battles were fought and many treaties were negotiated before they yielded their rich hunting grounds to the white man.

Peace was finally obtained through the efforts of a few powerful chiefs who early recognized the superiority of the whites. The leading chief, Ouray, was successful after many years of fighting in obtaining a permanent cessation of hostilities. In recognition of his friendship, the names of Ouray, his wife, Chipeta, and his son, Pahlone, have been commemorated by three beautiful peaks on the Continental Divide, between Marshall and Monarch Passes.

Several early Spanish expeditions from Santa Fe passed south and west of the forest, notably those of Don Juan de Rivera, in 1761, and Padres Escalante and Dominguez, in 1776. In 1779, Don Juan de Anza, with several hundred soldiers, entered the San Luis Valley in pursuit of Comanches who had been murdering Spanish settlers. He crossed the Rio Grande near the present town of Del Norte and continued over Poncha Pass to the Arkansas Valley, where he overtook and defeated the Indians, under Chief Cuerno Verde (Greenhorn), before turning back to Santa Fe.

In 1806, 3 years after the United States purchased Louisiana Territory from France, Lt. Zebulon Pike led the first Government military expedition into the territory. He reached parts of the present forest area when he explored the Arkansas River Valley, then crossed Poncha Pass and continued on southward toward the Rio Grande.

Gen. John C. Fremont, in expeditions extending from 1845 to 1853, entered the present forest and crossed the Continental Divide several times. Capt. John W. Gunnison, in his ill-fated expedition of 1853, crossed the Divide over Cochetopa Pass en route to Utah.

LODGEPOLE PINE (*Pinus contorta*).—Needles are 2 to 3 inches long, yellow green, growing in bundles of two. Bark is thin. Cones are one-sided, $1\frac{1}{2}$ to 2 inches long, and cling to the branches for years without opening or dropping their seeds. Cone scales are armed with short spines. This species is used mostly for railroad ties, mine props, and telephone poles.

PIÑON OR PIÑON PINE (*Pinus edulis*).—Piñon is confined to the foothills. Needles grow $\frac{3}{4}$ to $1\frac{1}{2}$ inches long, in clusters of two, and rarely, of three. Cones are $1\frac{1}{2}$ inches long and almost as broad. The large seeds are the common piñon nuts of trade.

SPRUCES—Two species.—Needles are scattered over the twigs singly; sharp-pointed, four-sided, leaving twigs rough like a grater when they fall off. Cones are pendent with parchmentlike scales, falling off the tree whole.

ENGELMANN SPRUCE (*Picea engelmannii*).—The new-growth twigs are covered with soft, short hair. Needles are less rigid and less sharply pointed than those of blue spruce; green, dark-blue green, or pale steel blue. Cones are about 2 inches long. Bark is dark, reddish brown and separates in the form of small, rounded scales. Main trunk, in contrast to blue spruce, is smooth and clean.

BLUE SPRUCE (*Picea pungens*).—The new-growth twigs are not covered with hair. Needles are stiff with sharp point, varying in color from silvery blue to green. Cones are about 3 inches long. Bark of mature trunks is gray and deeply furrowed. The main trunk always has numerous short twigs pushing out between branches.

FIRS—Three species.—Needles are blunt, flat, and soft to the touch, without any stem where they join branches; they leave flat, round scars when they fall off in contrast to short stubs left by spruce needles on twigs. Cones, unlike those of other species, stand erect. In the fall, the cones fall to pieces and leave only spikes on the branch. Buds are blunt and pitchy. Blisters, containing liquid pitch or balsam, are scattered over the smooth bark.

ALPINE FIR (*Abies lasiocarpa*).—Leaves are flat, about 1 to $1\frac{3}{4}$ inches long. Needles tend to turn upward. Cones are $2\frac{1}{2}$ to 4 inches long, dark purple. The bark is smooth, grayish white, furrowed only where the tree approaches a foot in diameter. Tree has a sharp, spirelike crown. It usually grows mixed with Engelmann spruce.

WHITE FIR (*Abies concolor*).—Needles are longer than those of alpine fir, often 2 inches or more long. White fir grows at lower altitudes, often with ponderosa pine and Douglas-fir. Its cones are usually larger than those of alpine fir and often grayish green in color. The wood is similar to that of alpine fir.

CORKBARK FIR (*Abies arizonica*).—The trunk, crown, cones, and needles of the corkbark and alpine firs are so much alike in general appearance that the two cannot be readily distinguished by these features. The cone scales of the corkbark fir are of a different form than those of the alpine, and the bracts borne on the backs of the scales also differ materially. The ashy-gray, soft, corky trunk bark alone readily distinguishes this tree from the alpine fir.

DOUGLAS-FIR (*Pseudotsuga taxifolia*).—Although similar in name, this species has no direct relationship to the true fir. Its leaves are flat, $\frac{3}{4}$ to $1\frac{1}{2}$ inches long, with short stems that join them to the branches. Cones are pendent, with three-pronged bracts protruding from the cone scales; they are persistent and fall off the tree whole. Buds are sharp-pointed, shiny, smooth, red brown.

JUNIPERS—Two species.—The fruit is berrylike, bluish in color. The needles are merely small green scales attached closely to the twigs, though sometimes spreading and about one-half inch long, very prickly to the touch. The trees are usually found with piñon and oak.

ROCKY MOUNTAIN JUNIPER (*Juniperus scopulorum*).—The berries are about one-quarter to one-third inch in diameter, the bark is scaly, the twigs are slender and graceful, and the heartwood is red. The species is distinguished from the one-seed juniper in that its berry usually has two seeds and is bluish or black. The berries mature in 2 years.

ONE-SEED JUNIPER (*Juniperus monosperma*).—The berries are small, mostly less than one-fourth inch in diameter and usually contain only one seed; they are covered with a bluish bloom which may be rubbed off, exposing the true reddish or copper color. Berries of the one-seed juniper require only 1 year to mature. The twigs are stiff and stout; the heartwood is brown.

BROADLEAF TREES

QUAKING ASPEN (*Populus tremuloides*).—The flat, nearly heart-shaped leaves are about 2 inches across; they tremble characteristically in a breeze. The bark is whitish or very pale green, smooth with black

scars where branches have dropped off. The trees rarely grow more than 60 feet high.

NARROWLEAF COTTONWOOD (*Populus angustifolia*).—This is usually a tall tree, 40 to 60 feet high. The bark is light yellow green, divided near the base of old trees into flat ridges, smooth and thinner above. The leaves are $\frac{1}{2}$ to 1 inch wide, by 2 or 3 inches long, very similar to willow leaves. The species is usually found along streams at low elevations.

LANCELEAF COTTONWOOD (*Populus acuminata*).—Although similar to the other cottonwoods in general appearance, this species is usually smaller in size. Leaves are broader than those of narrowleaf cottonwood but much more pointed.

ROCKY MOUNTAIN MAPLE (*Acer glabrum*).—Usually a shrub, but frequently 20 to 30 feet high, this species has paired opposite buds, sharply lobed leaves, light-gray bark, and paired, winged seed. Its leaves are 3 to 5 inches in diameter, opposite each other.

BOXELDER (*Acer negundo*).—This tree grows low and branches freely, 25 to 40 feet high, and up to 12 inches in diameter, has drooping clusters of greenish flowers. Its leaves are compound, 3 to 5, rarely 7, leaflets on a single stalk. Seed is paired and winged.

SCRUB OAK (*Quercus sp.*).—Usually a shrub, rarely more than 15 feet high. Leaves are alternate, smaller at the base than at the ends, with deep lobes; frequently drying on the tree and remaining over winter. The fruit is a short, pointed acorn. The species forms dense thickets at lower elevations. Often valuable for fence posts.

ALDER (*Alnus tenuifolia*).—The alder grows along and overhanging the streams, usually in clumps, several trees from the same root, frequently 4 to 6 inches in diameter and 15 to 25 feet high. Its leaves are large and sharply double toothed. The mature, seed-bearing fruit is conelike and quite noticeable in winter.

WILLOWS (*Salix sp.*).—This is the common shrub of creek bottoms. Its leaves are usually narrow, sharp-pointed. Some willows attain a diameter of 4 inches and a height of 15 to 25 feet. The buds are covered by a single scale.

WESTERN CHOKE CHERRY (*Prunus demissa*).—This is a shrub, 3 to 15 feet high. Flowers and fruit are clustered. Alternate leaves are sharply pointed. Bark, leaves, and seed are bitter to taste. Fruit is black.

PACIFIC SERVICEBERRY (*Amelanchier florida*).—Usually a shrub, 6 to 15 feet high. Leaves are silvery, sharply toothed toward the end, and alternate on branches; flowers white, in clusters. It has 5 hard seeds in each berry. Berries are edible and nearly black when ripe.

WATER BIRCH (*Betula fontinalis*).—The old bark is glossy, reddish brown, and marked by pale brown, longitudinal lenticels which often become 6 to 8 inches long and one-fourth inch wide. The old twigs are rough with many hard drops of resin. Seldom more than 25 feet high in Colorado; usually occurs in clumps; and has a graceful, almost delicate appearance.

F-387874

- (1) Mount Elbert, highest peak of the Rockies, and second highest in the United States.

F-388154

- (2) Forest ranger recording his morning readings of fire danger meter.

F-387864

- (3) Busy beavers have blocked the forest road.

F-387860

- (4) Busk-Ivanhoe (now Carlton) Tunnel on the old Colorado-Midland Railway, now a State highway.

F-387865

- (5) Ranger scaling timber cut from right-of-way of new highway.

F-387839

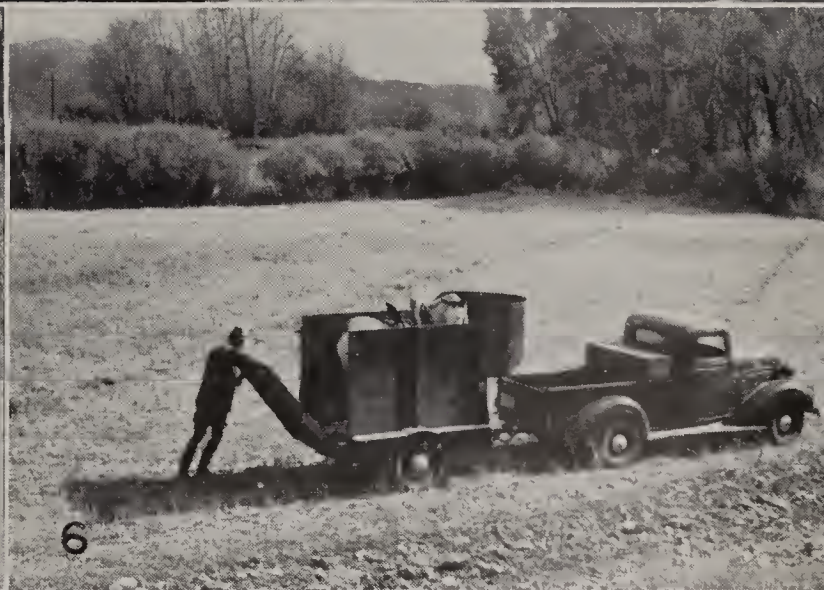
- (6) Silver, the ranger's horse, watches to see that the tailboard is securely fastened.

F-387871

- (7) Climax Molybdenum Co. plant on Fremont Pass—largest of its kind in the world.

F-387876

- (8) Control of erosion. New vegetative cover is coming in.



Fur traders next entered the region and for many years successfully plied their trade throughout the mountains, finding the rich harvest of furs more certain and more remunerative than the small deposits of placer gold which were found by the few prospectors who closely followed them. However, as fur trading declined and the military expeditions of Pike, Long, Fremont, and others broke the Ute resistance, increasing numbers of prospectors entered the mountains, attracted by the stories of gold.

In 1859, small deposits of placer gold were found in several places in the Arkansas River Valley, notably California Gulch, near the present town of Leadville. These findings increased, and early in 1860 several hundred men were panning gold within that area. Before the placer gold was completely exhausted, it was discovered that the region also had rich deposits of silver, lead, zinc, and copper. The discovery of the Little Pittsburg silver lode in 1879 centered the population at the present site of Leadville, and it soon became the metropolis of the mountain region and the second largest city in the State. Mining for these metals has been continuous since that time. According to the United States Bureau of Mines, ores valued at \$452,026,538 have been taken from the mines of Lake County since 1859. About 42 percent of this amount was silver, with zinc, lead, gold, and copper following in order.

Mines at St. Elmo and Monarch, in Chaffee County, at White Pine in Gunnison County, and at Bonanza, in Saguache County, were once heavy producers. The glory of these camps has passed, but mines are still being operated in the vicinity of the towns.

At Climax, on Fremont Pass, 13 miles north of Leadville, is located the world's largest molybdenum mine. About 90 percent of the molybdenum used in the United States is mined at the Climax Molybdenum Company's properties. This metal, widely used now as an alloy in the manufacture of the best grades of hard steel, was scarcely known before the turn of the century. During the World War its value was widely demonstrated. From 1917 to 1924 very little was milled, but since the latter date production has increased, the output in 1939 totaling almost 22 million pounds of molybdenum concentrates. The annual pay roll of the Climax Molybdenum Company approximates \$2,000,000.

In addition to the lode mines, there are fluorspar mines and quarries of

Yours to Help Protect

Innumerable scars attest the damage done by fires in the years preceding the establishment of the national forests. Extensive stands of aspen now occupy sites which formerly supported a dense cover of coniferous timber. In the early days of the West, forest fires were usually allowed to burn where and what they would. Little thought was given to their effect on future forest values or their influence on stream flow.

During the past 31 years (1909-39), in which fire records have been kept by the Forest Service, 266 fires have occurred within the Cochetopa National Forest. Most of these have been held to a very small area. The largest fire occurred in June 1939, and burned slightly more than 1,300 acres. Including this acreage, the average annual loss for the 31-year period is 87 acres. Millions of recreationists visit the national forests each year. Their campfires and their smoking increase the fire risk immeasurably. Lightning also plays its part in causing fires, but 50 percent of the fires in the Rocky Mountain region are caused by man and are, therefore, preventable if people can be persuaded to exercise reasonable care.

On many of the burned areas, a century or more must pass before the hillsides are again clothed in the dark green of pine and spruce. Meanwhile the old scars stand out as stark testimonials to the carelessness of the human race. *The forests are yours, to be enjoyed in fullest measure, but also yours is the responsibility for protecting them from destruction by fire.*

lime and granite which contribute to the wealth of the community. The quarries at Monarch, near Monarch Pass, annually ship about 100,000 tons of lime and dolomite to the steel mills at Pueblo, where they are used as a flux in the manufacture of steel.

Mining is encouraged in the national forests. A prospector may stake his claim wherever he finds workable values and may cut timber therefrom, free of charge, for its development. The Forest Service cooperates with the miner who is operating a valid claim, but reserves the right to protect the public interest against the patenting of fraudulent claims.

Water for Homes, Farms

The water which flows from the Cochetopa Forest is of great economic importance to the adjacent agricultural districts, as well as to some many miles distant. Agricultural crops in the Arkansas and San Luis Valleys are limited to the available water supply, and future possibilities for agricultural development of raw lands in these valleys are limited only by the amount of irrigation water available from streams having their sources within the forest.

A forest cover is essential if a constant flow of water is to be provided during the summer months. A forest floor of needles, matted vegetation, and humus absorbs the rain or melting snow and allows it to seep gradually into the soil. Fires destroy this forest cover and flash run-off of rainfall follows, resulting in floods, serious erosion, and destruction of property.

Waters from the Cochetopa provide domestic supplies for Leadville, Salida, Buena Vista, Saguache, and other towns.

Timber, a Regular Crop

The Cochetopa National Forest contains a merchantable volume of 1,316,000,000 feet board measure of saw timber. Engelmann spruce and lodgepole pine are the most important species. They make up approximately 83 percent of the merchantable forest, the remainder consisting of Douglas-fir, ponderosa, bristlecone, and limber pine, corkbark fir, and blue spruce.

Stands of Rocky Mountain juniper and piñon pine cover the lower slopes of the mountains and are valuable for fuel wood and fence posts. The annual timber cut is approximately one million board feet.

Large quantities of native timber were used in early railroad building and mining development. Some of the mountain slopes in the vicinity of Leadville, entirely denuded except for scattered new growth, bear evidence of the use made of local timber in the settlement and development of that community. Large quantities of timber were made into charcoal, which was used in smelting ores in early mining operations. Ruins of many of the old-type beehive brick charcoal kilns may still be seen in the Leadville and other sections of the forest.

With the establishment of the national forests, undesirable forest practices were discontinued, and a start was made in the scientific management of timber stands. As a result of many years of observation and experience, cutting policies have been developed for each timber type. Sales of timber are made and the trees are harvested in accordance with management plans carefully prepared after timber stands have been cruised, the volume estimated, the value appraised, and all related factors carefully considered. Such plans have as their objective the perpetuation of forest cover and sustained yield from forest lands. Mature, diseased, or overcrowded trees that are making little growth are selected for cutting.

Selective cutting usually results in the removal of from 50 to 65 percent of the merchantable volume, but only 25 to 40 percent of the number of trees, and leaves a stand of thrifty, immature trees properly spaced and capable of making maximum growth. In time such stands may again be cut over, and the forest lands thus kept in productive condition without any sacrifice of the forest cover.

Lumbering in the national forests is carried on by private enterprise. To insure the removal of those trees whose cutting will benefit the remaining stand, all trees to be cut are selected and marked in advance of removal. The money derived from sales, as well as from other forms of forest use, is paid into the United States Treasury. Twenty-five percent of these revenues is paid back to the counties for use as road or school funds. An additional 10 percent is returned to the Forest Service for the construction of roads and trails.

Grazing by Livestock

The Cochetopa National Forest furnishes summer pasture for 10,000 cattle and 21,000 sheep. The owners of this stock also own irrigated

ranches on which hay and other crops are produced, and this summer pasture rounds out individual private holdings necessary to a profitable stock-raising or home unit.

A moderate amount of grazing use is contemplated in the establishment of national forests, and such use is beneficial to the ranchers who hold permits to graze their cattle or sheep on the national-forest ranges. Permits are issued by the forest supervisors to stockmen for specified numbers of stock and for a definite grazing season, the aim in range administration being a reasonable use of the forage resources without damage to the surface cover.

Forest officers periodically inspect the ranges and cooperate with the stockmen, who are directly responsible for the care and control of their individual herds or flocks on the forest range assigned to them. This responsibility includes the proper distribution of stock and salt to avoid the overuse of any allotment to the point where the depletion of the forage resource would result in the additional loss of soils through erosion.

Range improvements, such as fences, watering places, or the eradication of poisonous plants, if they are intended to benefit the range as a whole, are usually made by the Forest Service, in cooperation with the stockmen.

The Wildlife Resource

The mountain ranges of the Cochetopa Forest provide ideal summer pasture for big game, and under the protection afforded in recent years fair-sized herds have developed. The last check showed 5,600 mule deer, 1,600 elk, 200 mountain sheep, 100 antelope, and 140 black bear on the forest.

Winter range is more of a problem, and the sparse foothills range inside and outside the forest boundary is the factor which controls the size of the game herds.

Game is an important resource on most national forests and must be considered in connection with plans for proper forest management. Forest officers act as special game wardens and cooperate with the State Game and Fish Department in the protection and propagation of game and fish.

Three State game refuges—the Buffalo Peaks, Poncha Pass, and Cochetopa—whose boundaries are shown on the map, have been established. Hunting there is prohibited by State law, except when opened by the State Game and Fish Commission to reduce the game herds. Prior to their trips, hunters in the vicinity of these refuges should determine the status of hunting in such areas.

Coyotes, lynxes, and mountain lions are detrimental to game and domestic stock and their numbers are systematically reduced. Foxes, marten, mink, muskrats, and weasels afford fair chances to trappers, but marten and mink are rather limited in number. Beavers are plentiful on nearly all streams within the forest, and a careful observer may without difficulty watch the activities of these master engineers. These animals do much toward the conservation of waters, improve conditions for fish, and are deserving of complete protection. Game and song birds are common within the forest.

Streams and lakes within the Cochetopa are mostly well stocked with rainbow, Lochleven, brook, and cutthroat trout. State and Federal hatcheries, located near Buena Vista and Leadville, furnish a supply of fry. The State Game and Fish Department, the Forest Service, and local sportsmen's organizations cooperate in distributing the fry to the fishing waters.

Recreational Advantages of the Cochetopa

The Cochetopa Forest is used extensively by local residents for hunting, fishing, camping, and picnicking; and recreational use by motorists from distant points is increasing.

Hotels, resorts, and cabin camps in adjacent towns offer ample accommodations to visitors. Horses and pack outfits may be hired at various points for use on trips into the back country. Roadside campgrounds have been provided by the Forest Service for the use of the public. The improvements harmonize with the surroundings and consist of tables, fire grates, and sanitation facilities. It is the policy of the Forest Service to provide attractive camp sites so as to reduce the danger from forest fires and protect public health. Forest visitors are invited to use the following forest camps which are shown on the map:

Tennessee Pass.—On U S 24, about 1 mile south of the Pass. Trailer space.

Halfmoon.—Beautiful site, with excellent view of Mt. Elbert, in Halfmoon Gulch, on secondary road, about 6 miles southwest of Malta.

Twin Lakes.—On State Route 82, about 3 miles west of Twin Lakes. Trailers.

Red Mountain Inn.—On State Route 82, about 5 miles east of Independence Pass. Trailers.

Hughes Meadows.—On Middle Cottonwood Road, about 8 miles west of Buena Vista. Small picnic area.

Collegiate Peaks.—On Middle Cottonwood Road, about 10 miles west of Buena Vista. Large area.

Cold Spring.—On South Cottonwood Road, about 8 miles west of Buena Vista. Roadside picnic area only.

Cottonwood Lake.—On South Cottonwood Road, about 9 miles west of Buena Vista. Small area. Trailer space above the lake.

Fox Lake.—On South Cottonwood Road, about 10 miles west of Buena Vista. Trailers.

Cascade.—On Chalk Creek Road—about 5 miles west of Mt. Princeton Hot Springs.

Garfield.—On U S 50, about 1 mile east of the town of Monarch.

Monarch Park.—On U S 50, about 3 miles west of Monarch. Large area, small shelter, trailers.

Monarch Pass Observation Point.—On old U S 50. Sanitation facilities only.

Major Creek.—On U S 50 about 2 miles west of Monarch Pass.

Big Springs.—About 20 miles west of Saguache, via State Route 114, 16 miles; Carnero Ranger Station road, 2 miles; stub road east, 2 miles.

Luders Creek.—On State Route 114, about 2 miles east of Cochetopa Pass. Trailers.

Cochetopa.—Wayside stop on State Route 114, at Cochetopa Pass. No water.

Winter sports may be enjoyed on an area which has been developed on Monarch Pass, 21 miles west of Salida. Three ski runs have been cleared, the longest being $\frac{1}{2}$ mile in length. A ski tow serves all three runs. A shelterhouse for the comfort and convenience of sports enthusiasts and the ski tow were constructed as a part of a WPA project, for which the town of Salida was the sponsor. Ample parking space has been provided on the short road leading into the area from U S 50. The City of Salida supervises the course and manages the tow. Two other areas, as yet unimproved but affording fine open slopes for skiing, are located at Marshall Pass and at Chalk Creek, near St. Elmo.

Wild Areas Still Exist

Two separate tracts containing over 69,000 acres have been set aside as wild areas, where forests will be maintained in their natural state and improvements held to a minimum. These will consist mainly of trails for horse and foot travel and fire protection, and simple types of sanitation facilities. No motor roads, resorts, or other commercial enterprises will be permitted. A limited amount of grazing will be permitted and prospecting for minerals may be carried on without restriction.

The Mount Shavano Wild Area, a tract of land containing about 32,000 acres, centers around the peak, which is widely known on account of the "Angel of Shavano." This figure, formed by drifted snow, is visible each year about June 1, when the solid snow cover breaks and disappears, leaving only the snow angel. Other peaks within the picturesque region are Aetna, Taylor, Granite, and Monumental.

The La Garita Wild Area is situated at the extreme southern limits of the forest and includes the northern exposure of the La Garita Mountains, Sheep Mountain, and the upper reaches of Saguache Creek, and comprises about 38,000 acres. This area is especially attractive on account of the large herds of elk and other wildlife which may be seen there. It is accessible only on foot or horseback, over Government trails, but may be reached from the town of Saguache over State Route 114, 40 miles, thence over a secondary road to Saguache Park, 10 miles, and thence 15 miles by trail. From the area it is possible to continue over Halfmoon Pass to the Wheeler National Monument and onward to Creede or other points along the Rio Grande.

These wild areas are the most beautiful and rugged parts of the forest and fully meet the general concept of wilderness areas in grandeur and charm. Present conditions there are as primitive as those which existed when Zebulon Pike led his first expedition across the forest. Here within a short period of time it is possible to go into complete isolation from the busy world, enjoy fishing, hunting, and mountain climbing, or rest undisturbed by the noise and clamor of modern life. In the Western vernacular, the visitor to one of these areas can "rough it" or "loaf," and, according to his desires, enjoy Nature at her best.



F-156318

(9) *Cottonwood Lake, a woodland gem of the Collegiate Range.*

F-388147

(10) *The ranger has decided to move Mr. Beaver to another location. Setting one of the "catch-'em-alive traps."*

F-384590

(11) *Mountain Boy Park and the Continental Divide near Independence Pass. State Route 82.*

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
EARLE H. CLAPP, ACTING CHIEF
T. W. NORCROSS, CHIEF, DIVISION OF ENGINEERING
**COCHETOPA
NATIONAL FOREST**
—COLORADO—
NEW MEXICO AND SIXTH
PRINCIPAL MERIDIANS
1940

Scale in Miles
0 1 2 3 4

- LEGEND**
- National Forest Boundary
 - Adjacent National Forest Boundary
 - Main Motor Highway
 - Other Motor Roads
 - Trail
 - District Ranger Station
 - Guard or Ranger Station
 - Supervisor's Headquarters
 - House, Cabin, or Other Building
 - Railroad
 - Camp or Picnic Ground
 - Commercial or Municipal Road
 - State Highway Numbers
 - U. S. Highway Numbers



MILEAGE		ALAMOSA	ASPEN	BUENA VISTA	CANON CITY	CLIMAX	DILLON	GLENWOOD SPRINGS	KREMMLING	LEADVILLE	MONTE VISTA	MONTROSE	PUEBLO	SAGUACHE	SARGENTS	VILLA GROVE
ALAMOSA			185	121	152	170	168	240	180	250	152	250	156	156	92	96
ASPEN		185		64	45	73	57	174	83	42	155	125	59	149	85	133
BUENA VISTA		121	64		81	49	33	124	69	26	31	129	35	104	58	121
CANON CITY		152	45	81		30	48	119	30	208	21	210	116	35	188	116
CLIMAX		170	73	49	30		42	98	20	109	146	108	14	53	210	134
DILLON		240	174	124	119	38	72	162	220	169	222	126	85	236	169	43
GLENWOOD SPRINGS		250	152	156	133	121	129	35	104	58	121	61	69	25	65	53
KREMMLING		180	42	155	125	59	149	85	133	89	129	117				
LEADVILLE		250	152	156	133	121	129	35	104	58	121	61	69	25	65	53
MONTE VISTA		152	156	133	121	129	35	104	58	121	61	69	25	65	53	
MONTROSE		156	133	121	129	35	104	58	121	61	69	25	65	53		
PUEBLO		92	96	133	89	129	117									
SAGUACHE		156	133	121	129	35	104	58	121	61	69	25	65	53		
SARGENTS		92	96	133	89	129	117									
VILLA GROVE		96	133	121	129	35	104	58	121	61	69	25	65	53		

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Drawn by Ralph B. Smith, June, 1940
Control by F. B. Washington

Fire Prevention Rules

1. **MATCHES.**—Be sure your *match* is *out*. Break it in two before you throw it away.
2. **SMOKING.**—Be sure that pipe ashes and cigar or cigarette stubs are *dead* before throwing them away. Never throw them into brush, leaves, or needles. When in the woods smoke only in places of habitation, at improved campgrounds, or at carefully selected rest and camp sites—never while *traveling*.
3. **MAKING CAMP.**—Use fire grates at improved campgrounds and observe the rules for building and extinguishing fires. Before building a campfire at places where no grates are available, scrape away all inflammable material from a place about 4 feet in diameter. Keep your fire *small*. Never build it against trees or logs, or near brush.
4. **BREAKING CAMP.**—Never break camp until your fire is out, *dead* out. Stir the coals while soaking them with water, turn burned sticks and drench both sides. Wet the ground around the fire and be sure the last spark is dead.
5. **BONFIRES.**—Never build bonfires or burn slash or brush in *windy* weather or while there is the slightest danger that the fire will get away.

If you find a forest fire, put it out if you can. If you cannot put it out, report it to the forest supervisor, the ranger, the sheriff, or the nearest telephone operator. Locations of the headquarters of the supervisor and the rangers are indicated on the map.

Forest Health Rules

1. **PURIFICATION.**—Mountain streams will not purify themselves in a few hundred feet. Boil or chlorinate all suspected water.
2. **GARBAGE.**—Burn all paper, old clothing, or rubbish. Bury or place in pits or receptacles provided, all garbage, tin cans, bottles, and other refuse.
3. **WASHING.**—Do not wash soiled clothing or utensils or bathe in springs, streams, or lakes. Use a container and throw dirty water where it cannot get into the water supply without first filtering through the ground.
4. **SANITARY PRECAUTIONS.**—Use public toilets if they are available. Where not provided, bury 1 foot deep all human excrement, at least 200 feet from water.
5. **OBEYING LAWS.**—Observe the rules of sanitation and protect yourself and others. Report all insanitary conditions to the nearest health or forest officer.

UNDER PROPER MANAGEMENT our forests can provide steady jobs and security for millions of workers, insure permanent industries and stable communities, contribute to a stronger Nation!



The La Plata group of the Rockies, as seen across Twin Lake

EVERYONE LOSES when the forests burn.
Be sure your fire is out—DEAD OUT!

